Title: Observing the Unobservable: Expanding the Depth and Time Horizon of Commingled Migration Choice data.

Authors

Sharon I. O'Donnell - corresponding author Social, Economic, and Housing Statistics Division, US Census Bureau, Sharon.I.O'Donnell@census.gov (official), Sharon.I.ODonnell@gmail.com (alternate), (1.301.763.5132)

Danielle H. Sandler - corresponding author Center for Economic Studies, US Census Bureau, Danielle.H.Sandler@census.gov (official), dismalscientist86@gmail.com (alternate), (1.301.763.9281)

N. Edward Coulson Professor of Economics and Director of the Center for Real Estate, University of California, Irrvine.

Owen Denoeux Social, Economic, and Housing Statistics Division, US Census Bureau

Abstract: This paper investigates how foreclosure events impact the timing, frequency, and characteristics of moves during and after the Great Recession. We use the 2008-2013 Survey of Income and Program Participation (SIPP) panel commingled with foreclosure data from RealtyTrac to build upon the work of Molloy and Shan (2013). The linked records include details about households undergoing foreclosures and those purchasing foreclosed properties. Our commingled file encompasses the event history period of a sample of U.S. households from 2008 to 2013, which follows the period of the Great Recession and most of the five years of declining housing wealth. To extend our measure of geographic mobility, we integrate the Census Master Address File – Administrative Records File (MAF-ARF) and USPS change of address data, which provide a panel of addresses for our SIPP sample over time, both between SIPP interviews and after the SIPP panel has ended.

Extended Abstract

The Great Recession was the greatest decline in housing wealth in the United States in recent history (Figure 1). An estimated 3.2 million foreclosures were filed in 2008 alone.[1] The outcomes of those who were potentially displaced by these foreclosures has only received limited attention in the literature, in part due to data limitations. The paper that best addresses these challenges thus far has been Molloy and Shan (2013), which observes individuals for two years following the last reported foreclosure event using data from credit reports.

This paper expands on their analysis using linked data from a nationally representative survey and administrative data on both foreclosures and residential locations. This data allows us to explore more deeply if and where the foreclosed households moved. As Molloy and Shan noted "about half of individuals have not moved even two years after

[1] RealtyTrac 2008 Annual Foreclosure Report.

the foreclosure started, suggesting that the foreclosure process is frequently never completed" (page 226, Molloy and Shan, 2013).

In the 2000s, the demand for housing data led to a substantial increase in the availability of administrative data gathered from local government property records, housing finance, credit reporting, and Multiple Listing Service (MLS) data. This expanded dataset enhances the range of physical characteristics and housing wealth that can be measured. Linking this data to longitudinal survey data allows for a more complete picture of housing mobility since the survey data provides demographic information, and the administrative record data does not exhibit the gaps found in longitudinal surveys. The SIPP data that we use here has demographic variables, family structure, and measures of both housing and non-housing wealth, all of which are important for understanding the effects of foreclosure on geographic mobility outcomes.

In addition to the administrative data on housing, we merge the SIPP data with change of address records from the U.S. Postal Service (USPS). The SIPP panel data indicates that some mortgaged households moved multiple times and that the duration of certain residencies is less than one year. By incorporating the USPS data, we aim to extend the observation period for moves and validate these short residencies.

Our commingled file encompasses the event history period of a sample of U.S. households from 2008 to 2013, which follows the period of the Great Recession and most of the five years of declining housing wealth. The foreclosure events recorded in the SIPP sample foreclosures are those which began between 2005 and 2011. For those who faced foreclosure 2005 to 2006 we do not have information on the two years which preceded the event. Similarly, for those who experienced foreclosures in 2011, the full two-year follow-up period may not be fully documented later in the panel period.

Based on the topics of interest described in the Call For Papers, our work covers two areas.

Improving the measure of household wealth. Measures of housing wealth at the household level are based on available survey data. However, survey data captures only a portion of the physical and financial characteristics of housing. Among the longitudinal household surveys that describe the U.S. population, SIPP does not collect information regarding whether a home sale or transfer occurs when a household moves. If the survey included this information, we could gain insights into the home's purchase price, details about any loans, the home's sale price upon ownership transfer, and the equity earned from the sale.

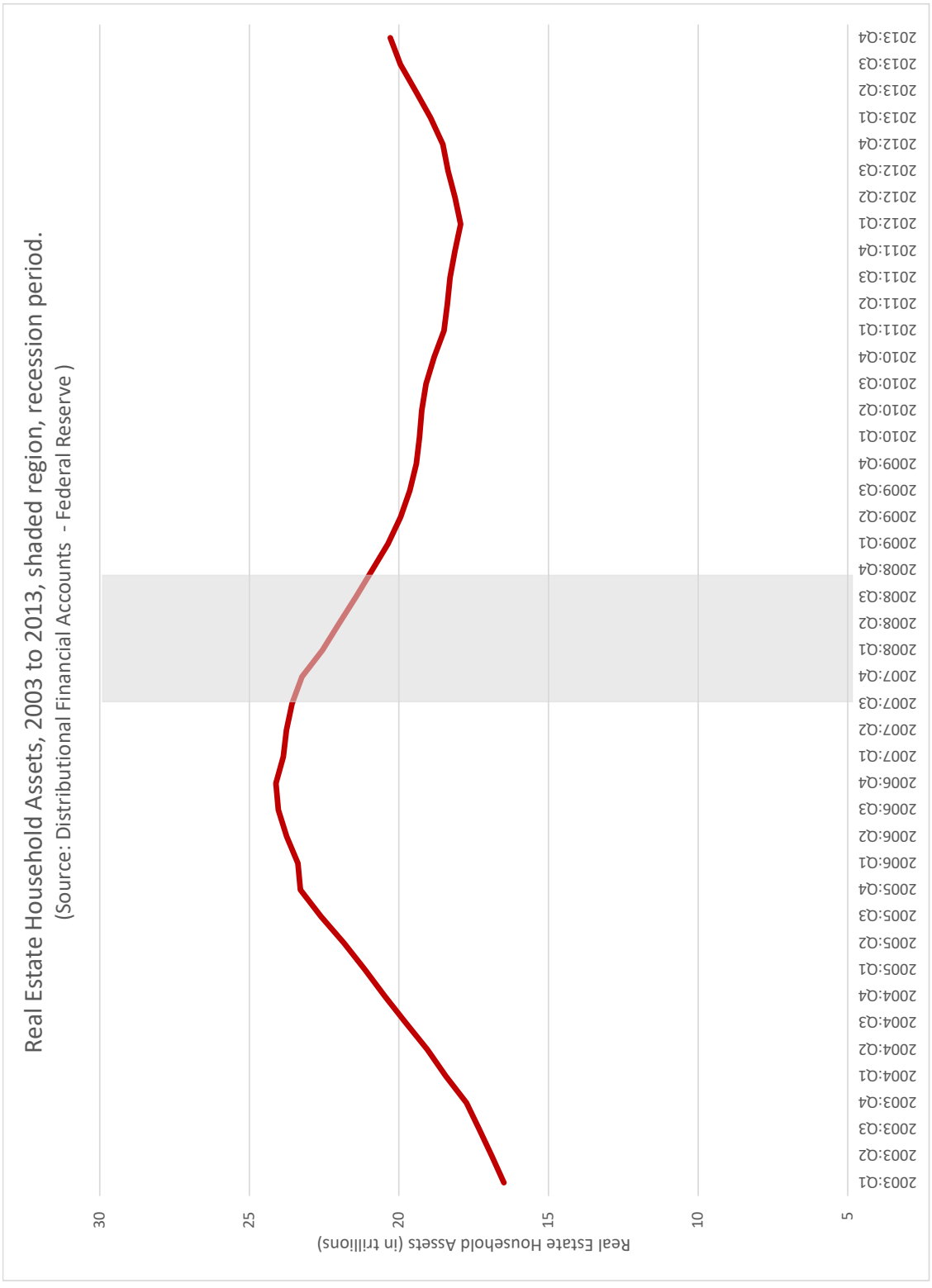
Using longitudinal Administrative Records (AdRec) data (e.g., RealtyTrac, CoreLogic, Zillow, Black Knight), we can verify self-reported home values by tax year, the number of loans that use the home as collateral, when and how the home was acquired, and the equity obtained when the home was sold or transferred to another owner.

Regarding home wealth, with property AdRec data, we can identify and characterize the number of homes homeowners own. Some homeowners purchase

a second home before selling their first home, which can result in juggling two mortgages for a time. The literature includes studies discussing this situation as a strategy to minimize the lock-in effect of an underwater mortgage (Ferreira et al. (2010), Schulhofer-Wohl (2011), Ferreira et al. (2011), Coulson and Grieco (2013)). AdRec data enable us to determine how long homeowners maintain this condition.

The addition of short/temporary moves as a category of moves. Short or temporary moves refer to residencies that last less than one year. Research indicates that households tend to move to a new location when there are significant differences in employment opportunities and local amenities that make their situation better compared to their previous location. Literature on "doubling up" suggests that some relocations may be temporary with no difference in employment opportunities. Short-term moves can be prompted by various shocks, such as financial crises, natural disasters, or coordination problems that arise when the buyer or seller is involved in simultaneous home sales. Delays in constructing a new home may also necessitate owners temporarily renting nearby.

Figure 1:


Real Estate Household Assets, 2003 to 2013, shaded region, recession period.
(Source: Distributional Financial Accounts - Federal Reserve)
Real Estate Household Assets (in trillions)
30
25
20
15
10
5
2003:Q1
2003:Q2
2003:Q3
2003:Q4
2004:Q1
2004:Q2
2004:Q3
2004:Q4
2005:Q1
2005:Q2
2005:Q3
2005:Q4
2006:Q1
2006:Q2
2006:Q3
2006:Q4
2007:Q1
2007:Q2
2007:Q3
2007:Q4
2008:Q1
2008:Q2
2008:Q3
2008:Q4
2009:Q1
2009:Q2
2009:Q3
2009:Q4
2010:Q1
2010:Q2
2010:Q3
2010:Q4
2011:Q1
2011:Q2
2011:Q3
2011:Q4
2012:Q1
2012:Q2
2012:Q3
2012:Q4
2013:Q1
2013:Q2
2013:Q3
2013:Q4